

Application Serial No. 10/521,539

Attorney Docket No. OT-5055

**REMARKS**

Applicant requests favorable reconsideration of this application in view of the foregoing amendments and the following remarks. Claims 1-7 were pending in the application and were rejected in the Office Action. By way of this Amendment, claims 1-7 have been amended and new claims 8-10 have been presented. Therefore, claims 1-10 are respectfully pending for further consideration.

**1. Objections to the Drawings**

The Examiner objected to the drawings due to an alleged failure to show a coil having a rectangular cross-section, as originally recited in claim 4. Applicant respectfully submits that this objection is now moot due to the amendments made herein to claim 4. Accordingly, a withdrawal of this objection is both warranted and earnestly solicited.

**2. Rejections of Claims 1-7 under 35 U.S.C. § 112**

The Examiner rejected claims under 35 U.S.C. § 112 as allegedly being indefinite. Applicant respectfully submits that this rejection is now moot due to the amendments made herein to claims 1-7. A withdrawal of this rejection is respectfully requested.

**3. Rejections of Claims 1-7 under 35 U.S.C. §§ 102(b), 103(a)**

The Examiner rejected: (a) claim 1 under 35 U.S.C. § 102(b) as allegedly being anticipated by U.S. Patent No. 568,345 ("Gilpin"); (b) claims 2, 3, 5, and 6 under 35 U.S.C. § 103(a) as allegedly being obvious when considering Gilpin in view of U.S. Patent No. 380,651 ("Fowler"); (c) claim 4 under 35 U.S.C. § 103(a) as allegedly being obvious when considering Gilpin in view of Fowler and U.S. Patent No. 15,869 ("French"); and (d) claim 7 under 35 U.S.C. § 103(a) as allegedly being obvious when considering Gilpin in view of Fowler and U.S. Patent No. 3,768,596 ("Solymos"). For at least the following reasons, Applicant respectfully traverses each of these rejections.

As amended herein, claim 1 (*i.e.*, the claim from which claims 2-7 depend) recites a buffer for an elevator system. This buffer includes, among other possible things (*italic emphasis added*):

a conical coil spring,  
wherein the buffer is configured to be disposed at one end of a  
hoistway of the elevator system for contacting a vertically moving member of  
said elevator system in the event of an abnormal overrun,

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wherein the conical coil spring includes a spiral coil element that comprises a series of coils,

*wherein a radius of the spiral coil element decreases along an axis of the conical coil spring such that if the spiral coil spring is fully compressed, the coils of the spiral coil spring are configured to be arranged in a substantially planar configuration, and*

*wherein a thickness of the coil element is substantially uniform between an outermost coil and an innermost coil.*

As hereafter explained, Gilpin, Fowler, French, and Solymos do not teach or suggest the buffer recited in claim 1.

The instant application teaches a conical coil spring 26 that: (a) is configured to be fully compressed such that the coils are arranged in a substantially planar configuration (see Fig. 3B); and (b) has a uniform diameter  $d$  for all coils between the innermost and outermost coils (see Fig. 2). The diameter of the innermost and outermost coils is radially adjusted to provide flat contact surfaces 26, 38.

Although Gilpin teaches a plurality of conical coil springs  $D$  disposed in a hoistway to contact an elevator, Gilpin fails to teach or suggest that the "radius of [one of the] spiral coil element[s] decreases along an axis of the conical coil spring such that if the spiral coil spring is fully compressed, the coils of the spiral coil spring are configured to be arranged in a substantially planar configuration." Further, although Fowler teaches a conical coil spring that appears (in Figure 1) to be capable of compression such that the "coils of the spiral coil spring are configured to be arranged in a substantially planar configuration," Fowler fails to teach or suggest that the "thickness of the coil element is substantially uniform between an outermost coil and an innermost coil." Rather, Fowler explicitly teaches the opposite by stating: "The wire, instead of being made of uniform size or diameter from one end to the other, as usual, is constructed of a gradually-diminishing diameter from the larger end,  $b$ , of the spring toward the smaller end,  $a$ ." See Fowler at lines 36-41. Moreover, neither Solymos nor French cures this deficiency of Fowler.

In light of the foregoing, it is clear that neither Gilpin standing alone nor the combination of Gilpin with any of Fowler, French, and/or Solymos can be used to reject claim 1, or any claim dependent thereon, under 35 U.S.C. §§ 102(b), 103(a). Moreover, as claims 2-7 depend from claim 1, each of these dependent claims is also allowable over Gilpin, Fowler, French, and Solymos, without regard to the other patentable limitations recited therein. Accordingly, a withdrawal of the various rejections of claims 1-7 under §§ 102(b), 103(a) is both warranted and respectfully requested.

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**4. New Claims 8-10**

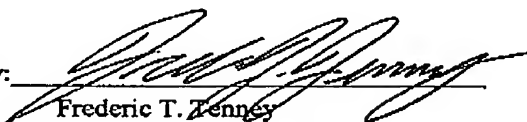
New claims 8-10 depend from claim 1 and are, therefore, allowable for at least the same reasons as claim 1 and without regard to the other patentable limitations recited therein.

**CONCLUSION**

In light of the foregoing, claims 1-10 are in condition for allowance. If the Examiner believes that a telephone conference will be useful to move this case forward toward issuance, Applicant's undersigned representative will be happy to discuss any issues regarding this application and can be contacted at the telephone number indicated below.

Respectfully submitted,

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